March 20, 1951 M. RIESNER 2,545,705

EXPANSION JOINT FOR A BASE FLASHING

Filed Oct. 13, 1949

Fig. 1.

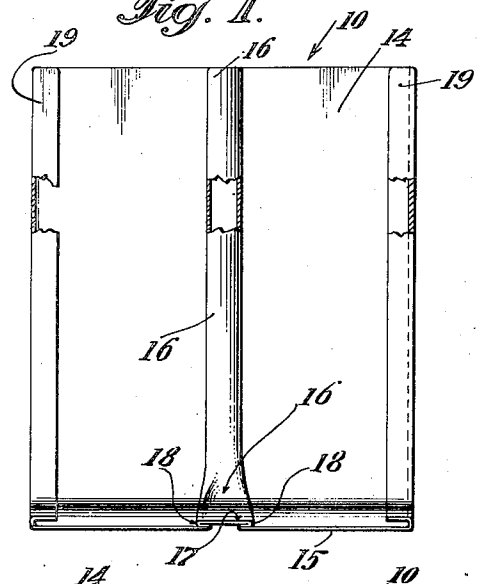
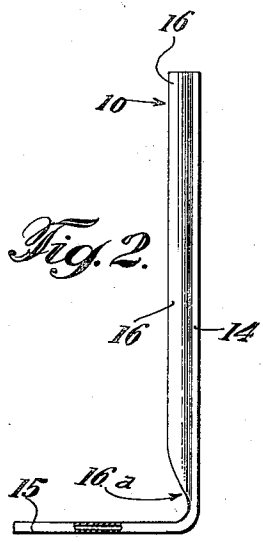


Fig. 2.



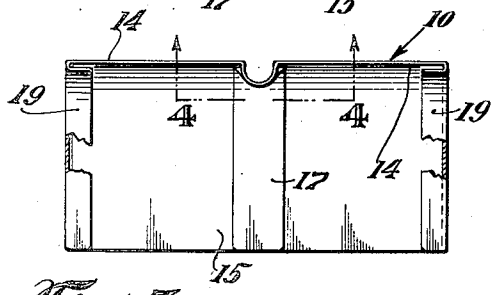


Fig. 3.

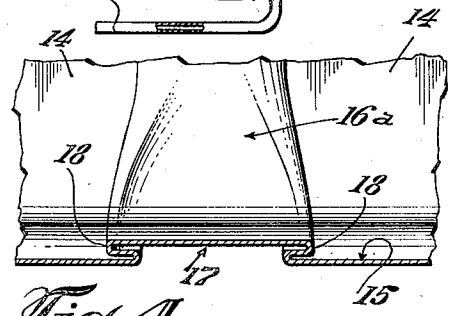


Fig. 4.

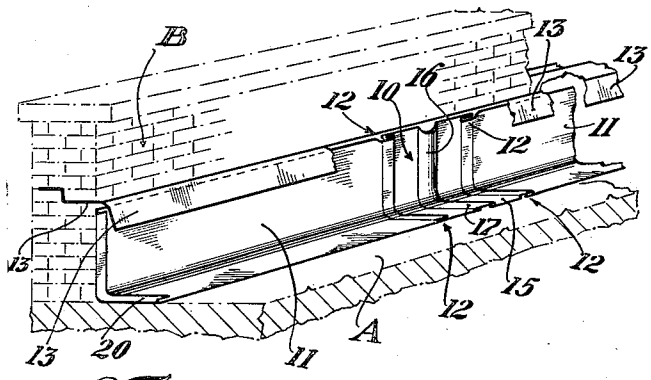


Fig. 5.

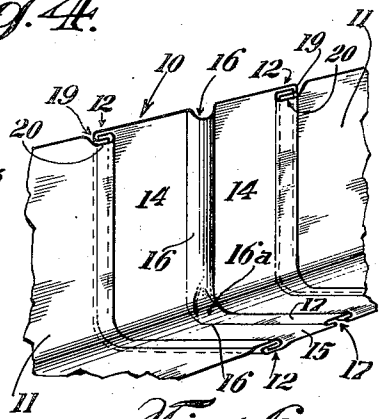


Fig. 6.

INVENTOR.
Milton Riesner
BY
Rackenbach & Hirschman
Attorneys

Patented Mar. 20, 1951 2,545,705

UNITED STATES PATENT OFFICE

2,545,705

EXPANSION JOINT FOR A BASE FLASHING

Milton Riesner, Pelham, N. Y.

Application October 13, 1949, Serial No. 121,157

4 Claims. (Cl. 108—26)

1

The present invention relates to an expansion joint for a base flashing.

In all building structures flashing must be used at all exposed intersections of a horizontal surface and a vertical surface that extends above such horizontal surface. This is necessary to prevent possible leakage at such intersections. Thus, flashing must be used where the roof of a building intersects with a wall, column, or chimney that extends vertically above the roof. A copper, zinc, or galvanized iron strip is commonly used. The strip is bent to form a right angle and the horizontal leg nailed or otherwise secured to the roof, the vertical leg being flush against the vertical surface. The roofing material, such as felt and pitch, or asphalt tile, is laid over the horizontal leg of the base flashing. The top of the vertical leg of the base flashing may be turned back into a ragglet in the vertical surface to prevent leakage behind it, or a counter-flashing may be used.

Since the flashing is continually exposed to the elements, the direct rays of the sun in the summer and to ice and snow in the winter, it must be adapted to withstand the wide variations in temperature to which it is subjected. The primary problem in this connection is that of expansion and contraction. Since the coefficient of expansion of the metal flashing is relatively high, and since substantially long strips of flashing may be used where the roof joins a vertical wall that extends up beyond the roof, the actual variation in length during a year may be great. If this expansion or contraction is not compensated for, there is great danger that the flashing will buckle and split at the seams of adjoining sections, resulting in leakage and all the attendant damage that is the natural result of such leakage.

It has hereto been a common practice to provide for such expansion and contraction by encasing the lock seams of adjoining sections of flashing in a soldered joint. This method, however, has not been satisfactory and the water leakage due to the expansion and contraction of the flashing has not been entirely eliminated. It is therefore the object of the present invention to provide an expansion joint for base flashing that will compensate for the changes in length due to temperature changes and yet not interfere with the smooth surface of the roof.

To accomplish this, a section of flashing, having a loop extending from top to bottom in the vertical leg of the base flashing, and from front to back in the horizontal leg, is inserted between

2

adjoining segments of the base flashing at approximately every 16 to 24 feet, thus completely compensating for any expansion or contraction of the base flashing. The loop in the horizontal leg is flattened, so that there will be no interruption in the smooth surface of the roof or other horizontal exposed surface, thus preventing the formation of water-accumulating areas.

Another object of the invention is to provide an expansion joint for base flashing that is extremely inexpensive to manufacture and which may be easily installed while the base flashing is being installed, with little or no extra labor.

These and other objects and advantages of the invention will be more clearly understood from the following description and the drawing of a specific embodiment of my invention, in which

Fig. 1 is a front view of an expansion joint for base flashing;

Fig. 2 is a side view thereof;

Fig. 3 is a top view thereof;

Fig. 4 is an enlarged fragmentary sectional view taken on the line 4—4 of Fig. 3;

Fig. 5 is a perspective view of an expansion joint embodying the present invention in position for use on a base flashing; and

Fig. 6 is an enlarged perspective view of the expansion joint shown in Fig. 5.

As can be seen best in Fig. 5, which shows an installation of the base flashing and the expansion joint before the outer roofing material has been added, the expansion joint generally designated as 10 is adapted to be inserted at intervals between segments of the base flashing 11 and joined to these segments of the base flashing by lock seams 12. The base flashing and the expansion joint lie flush with the intersection of the roof A and the vertical wall B. Inserted in the wall B and having a flap overlying the top edge of the base flashing 11 and the expansion joint 10, is the counter flashing 13.

The expansion joint 10, like the regular segments of the base flashing 11, has a vertical leg 14 and a horizontal leg 15. Centrally located in the vertical leg is the loop portion 16. The lower end 16a of the loop 16 is of necessity distorted to provide a uniform, uninterrupted transition from the vertical to the horizontal. The loop portion 16 is shown arcuate, but, of course, may be V-shaped or of any other suitable shape.

Sixteen-ounce copper is commonly used as base flashing, but for the expansion joint it is preferable to use twenty-ounce copper, since the loop 16 is formed out of the vertical leg 14 and the stretching reduces its thickness to about that

of the sixteen-ounce copper. The looped portion that is formed in the horizontal leg 15 is flattened as shown at 17 and its side portions overlap the horizontal leg. As can be seen from the drawing, the flattened loop 17 in the horizontal leg does not extend to any appreciable distance above the horizontal leg and thus will not interfere with the smooth surface of the roof.

Located at the sides of the expansion joint are the bent-back portions 19. These bent-back portions 19 are adapted to engage with reversed bent-back portions 20 on adjoining segments of the base flashing 11, to form the lock seams 12. The lock seams may be formed by covering the engaged bent-back portions 19 and 20 with lead or similar material.

While I have described and illustrated a specific embodiment of my invention, it is obvious that various changes therein, particularly in the configuration and disposition of the several parts thereof, may be made without departing from my invention.

I claim:

1. An expansion joint for a base flashing for a flat roof at its line of juncture with a vertical wall surface, comprising a sheet of metal having sections constituting a vertical leg and a horizontal leg, a loop in the vertical leg and extending beyond the plane of the vertical leg from the top to the bottom of the vertical leg, said loop being deformed adjacent the bottom of the vertical leg, whereby the smooth continuity of the meeting edges of the vertical and horizontal legs is uninterrupted, and a flattened loop located in the horizontal leg and extending from the rear to the front thereof, said flattened loop having portions overlapping the adjoining portions of the horizontal leg, and a turned back portion located on both sides of the expansion joint and adapted to form a lock seam with adjacent segments of the flashing, said flattened loop being in line with the loop formed out of the vertical leg and said vertical loop and flattened loop both being located in the quadrant formed by the two legs.

2. An expansion joint for a base flashing for a flat roof at its line of juncture with a vertical wall surface, comprising a metallic sheet having a vertical leg and a horizontal leg, a loop formed out of the vertical leg and extending beyond the face of the plane of the vertical leg from the top to the bottom of said vertical leg and including a flattened loop located in the horizontal leg extending from the rear to the front of the horizontal leg and in line with the loop formed out of the vertical leg, said vertical loop and flattened loop both being located in the quadrant formed by the two legs.

3. An expansion joint for a base flashing for a flat roof as claimed in claim 2, in which said flattened loop has portions overlapping the adjoining segments of the horizontal leg.

4. An expansion joint for a base flashing for a flat roof at its line of juncture with a vertical wall surface, comprising a sheet of metal having sections constituting a vertical leg and a horizontal leg, a loop in the vertical leg extending beyond the face of the plane of the vertical leg and from the top to the bottom of the vertical leg, said loop being deformed adjacent the bottom of the vertical leg, whereby the smooth continuity of the meeting edges of the vertical and horiformed out of the vertical leg, said flattened loop located in the horizontal leg extending from the rear to the front thereof and in line with the loop formed out of the vertical leg, said flattened loop having portions overlapping the adjoining portions of the horizontal leg, said flattened loop and vertical loop both being located in the quadrant formed by the two legs.

MILTON RIESNER.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,100,238	Burgess	Nov. 23, 1937